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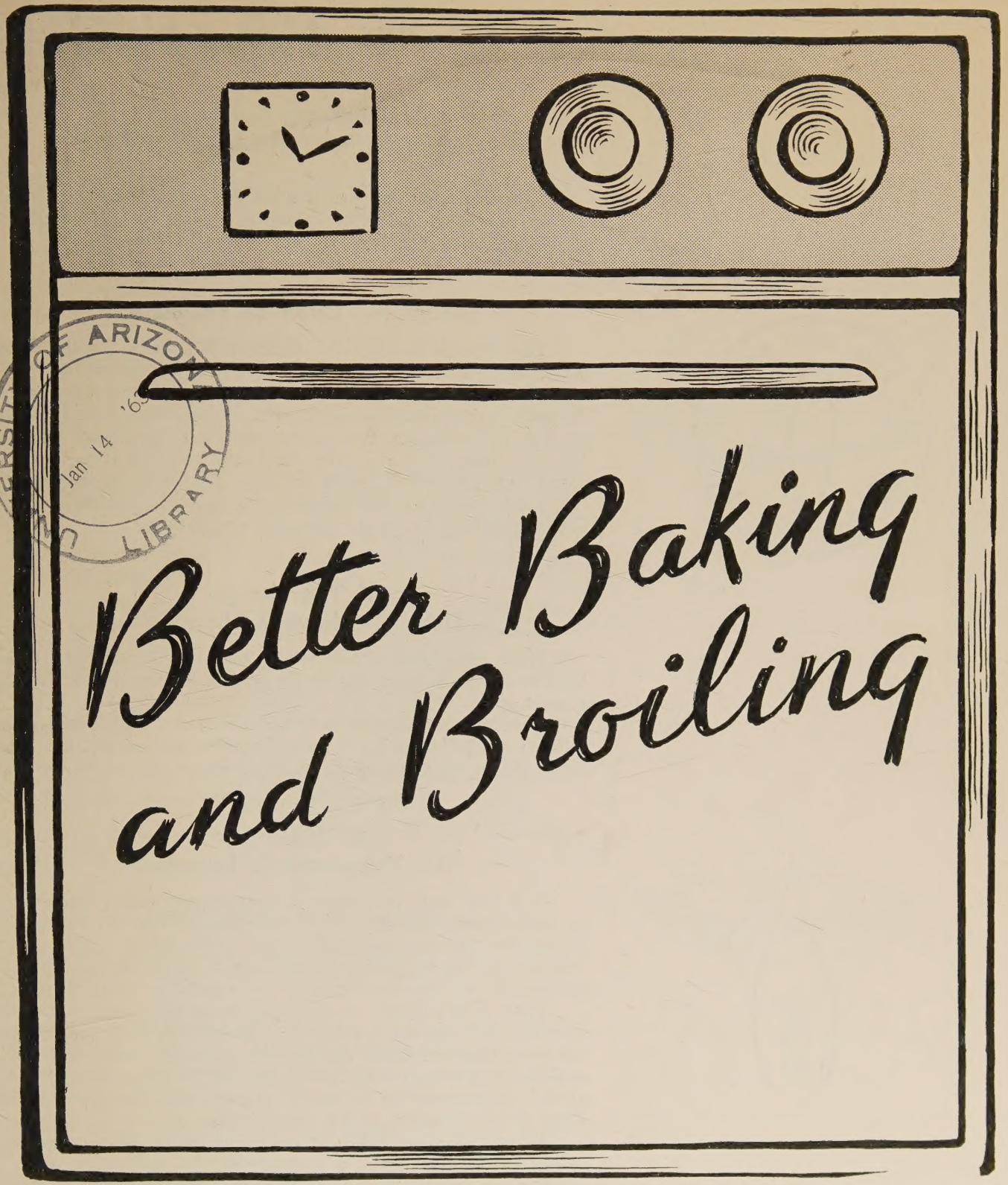

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Better Baking and Broiling

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How to Get the

By Bernice Strawn
Extension Home Management and Equipment Specialist

To turn out picture-perfect cakes and pies requires the correct use of your oven and other baking equipment as well as reliable recipes and reliable methods of preparation.

Should the Oven Be Preheated?

This depends on the food. Cakes, pies, cookies, breads, cream puffs, and souffles are sensitive foods and call for accurate temperatures. If you put these foods in the oven of an electric range before the end of the preheat period, there will be intense heat from the top which will cause top browning before the food has baked through. In a gas range, the heat is from the bottom only, but a low temperature during the preheat period will affect the quality of the product.

Foods such as meats, potatoes, apples, and casseroles are less sensitive and can be in the oven during preheating.

If Your Range Does Not Have a Thermostat

Many gas ranges still in use do not have thermostats. If you have one of these, you need to use a portable oven thermometer as a guide.

Place the thermometer toward the front and at one side of the rack on which the baking is done. Turn the heat on full, and after about fifteen minutes look at the thermometer and adjust the heat.

If You Think The Thermostat is Inaccurate

In a very small percentage of ranges a thermostat may get out of kilter during shipment or for some unknown reason during use. If you feel this has happened to your oven, check it with a thermometer. If the temperature is off only 15 to 25 degrees, you can compensate for the time being by adjustment of the dial.

Keep in mind that the oven may be accurate at one temperature, say 300 degrees, but be off at the 400-degree setting. Check the oven with a reliable thermometer when the thermostat is set at a low and a high temperature. Be sure to leave the control set at each temperature for at least 30 minutes while you are checking. Read the thermometer quickly to avoid loss of heat.

If your oven sometimes comes up to baking temperature very slowly but at other times is satisfactory, the reason may be this: Electric line voltage may be low if many people in your area decide to turn on their ranges at the same time. Gas pressure may also vary, and this will affect the time required for a gas oven to reach a certain temperature. LP (bottled) gas ovens will heat more slowly when the gas supply is low.

Best Baking Results

Have You Checked All Possible Sources of Trouble?

Before you call a serviceman to adjust your thermostat or make other adjustments, consider this check list:

1. Are you peeking in the oven often? This causes loss of heat and slower cooking.
2. Are you using the baking temperature called for in a tested recipe?
3. Are you putting cold food in the oven? This lengthens the cooking time.
4. Are you using the right types and sizes of pans? Are they properly placed to allow circulation of heat? Are the racks of the oven properly placed? (See directions on page 4.)
5. Is your recipe reliable? Are you using the exact ingredients called for and measuring them carefully? Are you following mixing instructions to the letter? Overmixed cakes and muffins brown poorly. Custards made with homogenized milk require about 20 minutes longer than the time given in the recipes.
6. Is your oven level? Check this by placing a shallow pan of water on the oven rack. See if water runs to one side. An unlevel oven will be hotter on the high side.
7. Does the oven door close tightly? If the casing around the oven door is discolored during baking this is a sign of a poorly fitting door and heat may be lost. The door can be adjusted by a serviceman.
8. If your fuel is electricity, are the heating elements of the oven (top and bottom) *pushed all the way in?*
9. If you have an automatic clock control, is it set for manual control?

Automatic Oven Time Control

Many gas and electric ranges have automatic time controls which can be set in advance to turn on the oven and turn it off at a preset time.

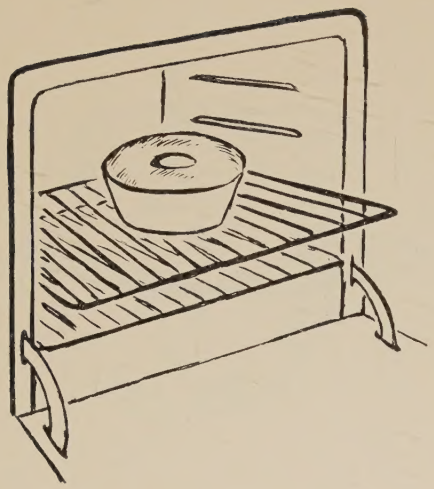
A time control has many uses. Learn to use it correctly; follow the instruction book. If you are worried about leaving the meal, try a meal when you are at home. You will have more confidence when you see what happens.

Protein foods which are not frozen should not be left in the oven more than four hours before the heat is set to turn on. It is dangerous to place fresh meat in the oven early in the morning and leave it to be cooked for dinner that night.

Frozen roasts may be left in the oven longer before cooking starts, but the length of the thawing time will depend on the size of the cut and the temperature of the room.

Place Pans Correctly in the Oven

Arrangement of pans in the oven can make a great difference in the evenness of baking and browning. Foods cook largely by circulation of the heated air, and when the oven is crowded the flow of air is partially cut off.



When you bake one food

For one cake, pie, or other food, place the pan in the middle of the rack which is on the center set of glides in the oven in order to obtain even top and bottom browning. If you like darker bottom browning, as for pies, move the pan lower in the oven. A higher oven position will give darker top browning.

When you bake several foods

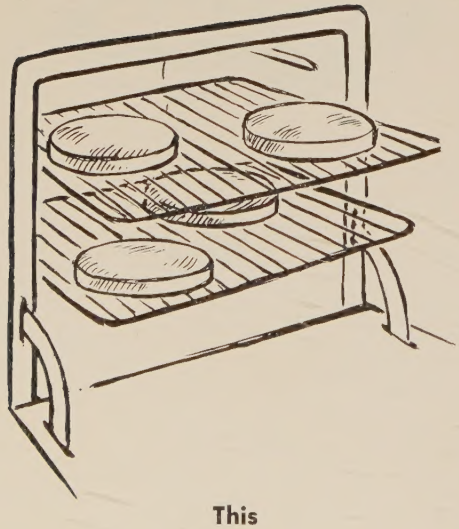
Use two racks and place one just above the center set of glides and the other just below the center if pans permit.

Place pans at least one inch from the sides and back of the oven and allow space between pans on the same rack. Never place one pan directly above the other on different racks. There must be space for the heat to circulate freely in order to give even baking.

See illustrations below of right and wrong placement.

For oven meals

On the lower shelf put such foods as vegetables with water in covered pans, baked potatoes, and casserole dishes. Breads and desserts are best on the top shelf as they may brown too fast on the bottom if placed below.



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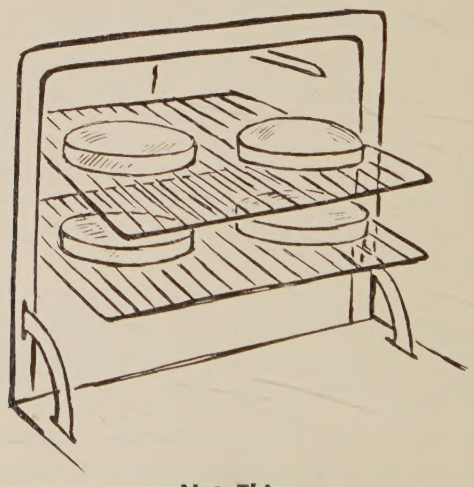


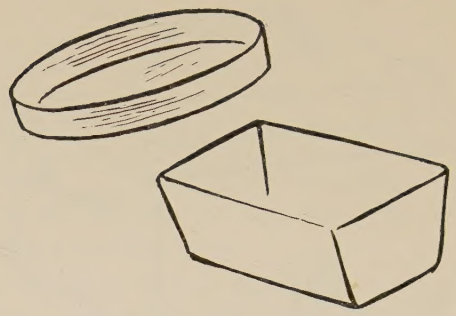
Not This

Baking Pans

Choose Pans Wisely

For cakes

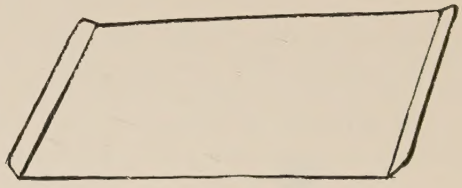
1. *Use the size pan* called for in the recipe. Cakes do not brown well on top if the pan is too deep and the batter cannot rise to the top.
2. *Use dull metal or glass pans.* Dark pans absorb the heat and cakes may brown excessively. When you bake in glass, use a temperature 25 degrees lower than called for in the recipe. Glass absorbs and holds the heat, and the lower temperature compensates for this.
3. *Do not use warped pans.* They cause cakes to rise and bake unevenly.



For Cakes and Breads

For cookies and biscuits

1. Use a bright metal baking sheet or a pan with very low sides. High sides shield the food from the heat and prevent good top browning.
2. The baking sheet should be small enough to allow good circulation of heat around it when in the oven. It should not touch sides or back of oven.
3. If you do not have a baking sheet, invert a cake or roasting pan (shiny metal) and bake cookies or biscuits on the bottom.
4. To speed up cooky making, place rolled or drop cookies which are ready for baking on sheets of aluminum foil. As a pan of cookies comes from the oven, slip a sheet of unbaked cookies onto the pan, then into the oven without delay. If you use heavy foil, you may bake cookies on it without using a pan underneath.



For Cookies and Biscuits

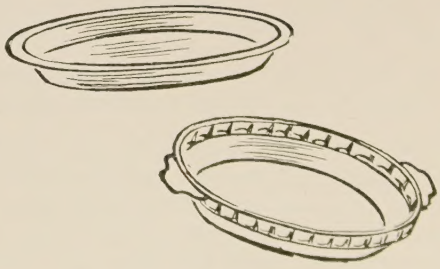
For pies

To get good browning of the lower crust, a pie pan should absorb and hold heat. Therefore, the materials for pie pans differ from those used for cakes.

Oven glassware absorbs heat and gives good browning.

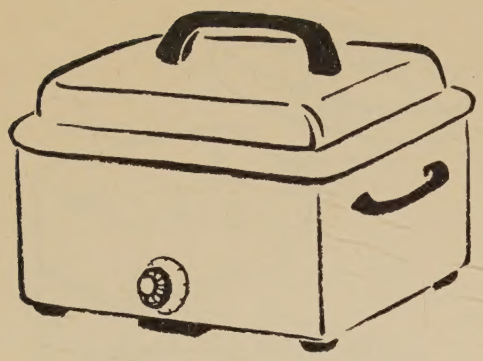
Aluminum pie pans should have a dull finish rather than bright to help absorb heat. Aluminum foil pie pans with black bottoms are now on the market.

Pie pans with high sides—both glass and metal—are especially good for fruit pies so that juices do not boil over in the oven.



For Pies

Portable Baking Equipment



Portable Roaster Oven

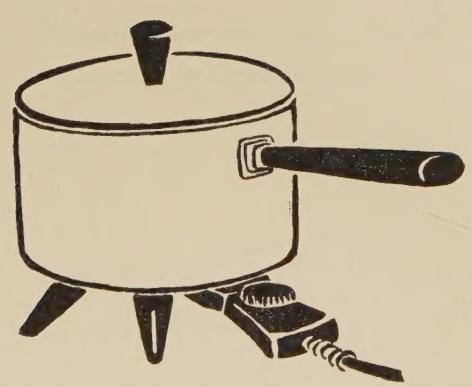
You do not need to shut yourself up in a kitchen to bake. New portable equipment lets you bake wherever you like.

Portable Ovens

A new small portable oven is large enough to bake pies, layer cakes, biscuits, or a casserole. It has controlled heat up to a temperature of 450 degrees and can be plugged into any convenient outlet. The removable heat control for this appliance can also be used with the fry pan or sauce pan made by the same manufacturer.

Another portable oven has provisions for broiling and rotisserie cooking as well as baking.

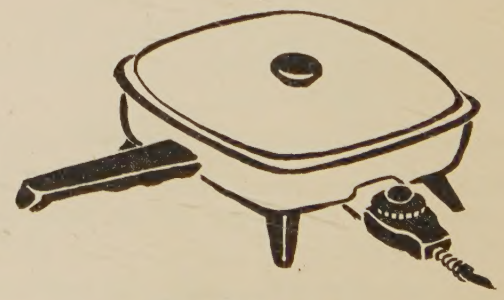
The roaster oven as shown at the left is large enough for a small cooky sheet or two eight-inch cake pans. Of course, it is also used for roasting and complete oven meals.



Electric Sauce Pan

Electric Fry Pans, Dutch Ovens, and Sauce Pans

Upside down cakes, quick breads, and the like bake nicely in the electric fry pan. For some foods use the electric Dutch oven or sauce pan. Directions for baking in these appliances are included in their instruction booklets. If the cover has a vent, leave it open to allow moisture to escape. Do not expect top browning as for cakes baked in the oven. Set control at 250 to 275 degrees for cake; this is about 100 degrees lower than you would set your oven control.

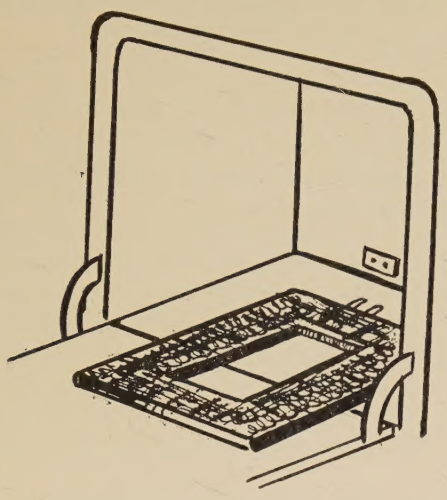


Electric Fry Pan

Oven Cleaning

Before You Start

Let the oven cool before cleaning. Make sure all switches are turned off of an electric range and remove racks and bottom heating unit.



Types of Cleaners

One of the simplest cleaners is household ammonia. Fill a small dish and leave it on the oven shelf overnight. To speed up the job, slide a pan of hot water in on the rack beneath the ammonia to hasten its vaporization. Greasy film on the oven walls will loosen and can be washed off with sudsy warm water a couple of hours later.

The hard part is getting into all the corners of the oven. Use a sponge mop with a handle about 12 to 18 inches long to do the major part of the cleaning, and put on the finishing touches by reaching in if necessary.

Commercial Cleaners

Some of these are brushed on the oven lining; others are sprayed on. Another kind is put in the oven in the can, and then hot water is added. The vapor given off goes to work on the grease.

These products act to loosen burned-on grease which needs to be washed off. A second application is sometimes necessary.

Precautions

Precautions listed on containers of commercial cleaners deserve careful reading. These cleaners are potent chemicals. It is best to wear rubber gloves when using them. If you should get any of the cleaner on your face or near your eyes, dilute immediately with quantities of water. Protect the floor near your oven with several layers of newspaper.

Keep these products out of the reach of children. They are caustic and dangerous either internally or externally.

To Save Future Cleaning

Use low temperatures for roasting meat in order to minimize spatter. If fat seems excessive, trim the meat before broiling. This will help keep down spatter and fat fires. Do not broil nearer the heat than necessary. Wipe off the oven as soon as it is cool to avoid burning layer upon layer of grease.

Runover of fruit pies can be prevented with a bubbler made of aluminum foil. Roll a piece of foil (about 3 inches by 5 inches) around a pencil. Remove pencil and insert foil roll upright in center of pie so that juice will bubble up the foil roll instead of running over the side of the pie.

Or a circle of foil about 3 inches larger in diameter than the pie pan may be placed on the rack below the pie to catch the drip. Turn up edges of the foil to make certain the oven is well protected. Do not cover the shelf or oven bottom with foil; this will interfere with circulation of heat.

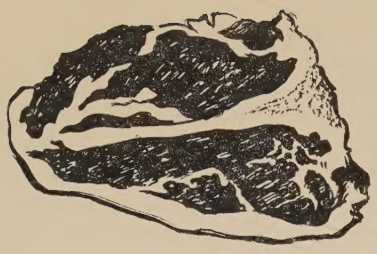
Cleaning New Ranges

Many recent model ranges require less effort for cleaning. Some ovens have linings which pull out so that all parts of the oven can be reached. Others have doors which glide up, drop down, or lift off so that it is possible to stand close to the oven while cleaning.

For these new ovens and also for those with glass doors, the cleaners described above may be used.

Another range has disposable foil liners which protect the top, bottom, and sides of the oven. When soiled, replace with new foil from a standard kitchen roll which fits into holders designed for this oven. *Do not line other ovens with foil* unless the instruction book specifically recommends its use.

What to Broil

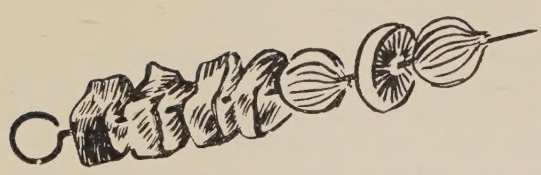


For detailed directions on preparation consult a reliable cookbook or your range instruction book.

- Tender cuts of meat (steaks should be at least 1 inch thick if you like them rare with a browned exterior).

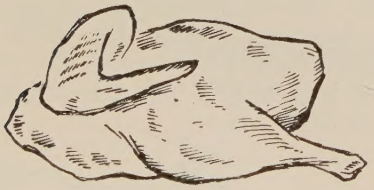
- Beef chuck or round from a choice carcass; other cuts marinated or treated with tenderizer.

- Ground meat patties, wieners.

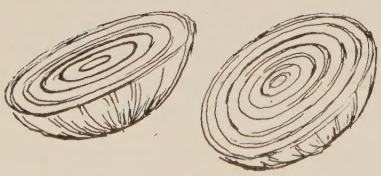


- Kabobs of lamb or beef which have been marinated.

- Frozen meats (may be broiled without thawing, but allow 1½ to 2 times the usual broiling time).



- Chicken (small, tender, 1½ to 2½ lbs., halved or quartered).



- Fish (fillets, steaks, small whole fish).

- Vegetables (mushrooms, slices of sweet potatoes, tomatoes, onions).

- Fruits (apple rings, halves of fresh or canned peaches, pears, apricots, grapefruit, slices of pineapple).

Broiling Equipment

Broiling is cooking by direct heat. Most broiling equipment cooks foods one side at a time, but some new types of broilers make it possible to broil on two sides at once. Rotisseries expose all sides of a fowl or roast to the heat as the spit turns.

Broiling in an Electric Range

Because the top heating unit is for broiling, the oven serves as the broiler compartment. Speed of broiling is controlled by the distance between the food and the top heating element. The broiler pan on the oven rack is moved up if cooking is to be fast or down when food is to broil slowly.

The oven door is left ajar because if it is closed the food will bake rather than broil by direct heat, and the flavor will be different. There are a few exceptions in recent ranges especially designed for broiling with the door closed.

A recent innovation is the vertical broiler. Food is held securely in a rack and inserted into a small compartment where it is broiled on both sides at the same time.

Broiling in a Gas Range

The speed of broiling depends on two factors: the distance of the food from the flame and the size of the flame which is regulated by the heat control knob. Low temperature broiling is often desirable for foods which require a longer cooking time, such as chicken. The broiler door should be kept closed during broiling in a gas range. The broiler space is vented, but the smoke is usually consumed by the gas flame.

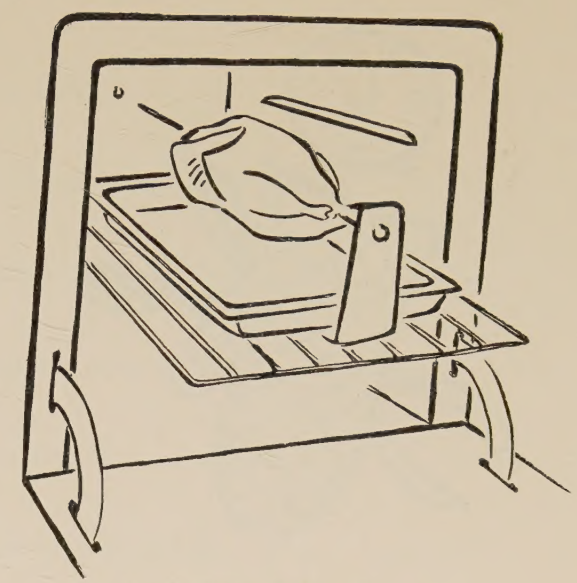
Broiler Pans

These usually consist of a drip pan, which may be from 2 to 6 inches deep, and a rack. Food to be broiled is placed on the rack; fat which melts during cooking drains below.

One range has a two-part broiler pan. Water poured into the lower compartment keeps the upper pan cool so that fat does not burn onto the pan or smoke.

Rotisserie Broiling

Some of the newer gas and electric ranges come equipped with a rotisserie in the broiler so that a whole chicken, turkey, duck, or roast can be given this special type of broiling. Instruction books explain the use of this equipment and the types of food to cook.



Oven Rotisserie

In placing meat or fowl on the rotisserie spit, make certain that the spit is balanced so that it will turn freely. The broiler pan is placed under the revolving spit to catch the drip.

A few of the newer ranges have rotisseries built into their tops. Also, separate rotisserie units are made which fit over the top burner of a gas range.

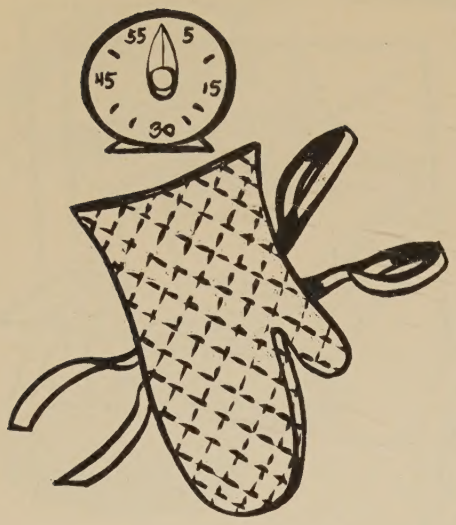
Portable Electric Broilers and Rotisseries

A portable broiler makes it possible to broil in the dinette, family room, porch, or any convenient place where you have an outlet. It is also a great convenience in the kitchen if you are struggling with an out-of-date range or a low broiler that is difficult to reach.

Remember that these are high wattage appliances, and unless your house is adequately wired, they cannot be plugged into the same circuit with another heating appliance without blowing a fuse.

Cooking speed in some of these appliances depends on the distance between the heating unit in the top and the food on the pan or spit. Glides to support the pan at different heights are built into the walls of the appliance. Some portable broilers have controls to regulate the intensity of the heat without changing the position of the food. Most of these appliances are equipped with a rotating spit and can be used either for broiling or rotisserie broiling.

Tips on Broiler Use



To broil just the right length of time, use a minute timer to remind you when time is up. Broiling times for many foods are very short, and it is easy to get preoccupied with other cooking jobs.

Have the right tools to help you broil. Tongs let you turn meat without piercing it and do not cause loss of juices. Use a long-handled brush to put on melted butter or margarine (after you turn the meat), and mitts are handy for removing a hot broiler pan.

To avoid smoking during broiling, be sure food is not too close to the heat, and slash the edges of the meat to prevent curling. Another cause of smoke may be some food which cooked over at another time and is still in the oven. If grease flames during broiling, turn the heat off at once. Then throw a handful of salt or soda on the flame and shut the broiler door. *Never use water on a grease fire.*

Short Cuts to Broiler Use and Cleaning

Before you start

Easier cleaning starts before you begin to broil. Grease the rack before you place meats or other foods on the broiler pan. There will be less sticking and less scouring to do afterward.

To broil small quantities of food

You can also simplify cleanup and broiling of small quantities of food by placing the food in a small broiler pan or a flameproof platter set on top of the large broiler pan. Either of these will go in the dishpan and save cleaning the larger broiler, and some of them can also be used for serving at the table.

When you finish

As soon as broiling is finished, remove the broiler pan from the range (or portable broiler) to prevent grease and food particles from cooking onto the pan. Sprinkle detergent generously over pan and rack, cover with a wet paper towel or cloth, and let stand while you serve the meal. At dish-washing time, the deposit will wash off easily, although sometimes you may need a scouring pad for the rods of the rack.

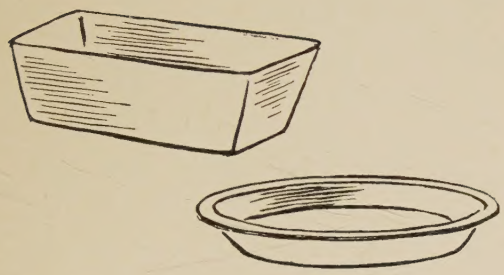
For less pan washing

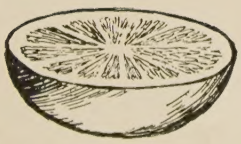
Throwaway grooved broiler pans made of heavy aluminum foil are another work saver. These pans also can be used on top of your range broiler pan.

For another short cut, line the range broiler pan with aluminum foil, and turn the edges up to catch the grease. If you put foil over the rack, cut slits in it so that melted fat can flow freely to the pan below and away from the intense heat.

Do You Have These Problems?

	See page
Oven preheats slowly	2
Range does not have thermostat	2
Oven temperature is too high or too low	3
Baking results are unsatisfactory	3
Foods bake unevenly	4
Baking pans are unsatisfactory	5
Want to bake in small appliances	6
Oven is hard to clean	7
Want to broil something besides steak	8
Need help in using broiler	9
Want to do rotisserie broiling	9
Broiler smokes	10
Hate to clean broiler	10





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